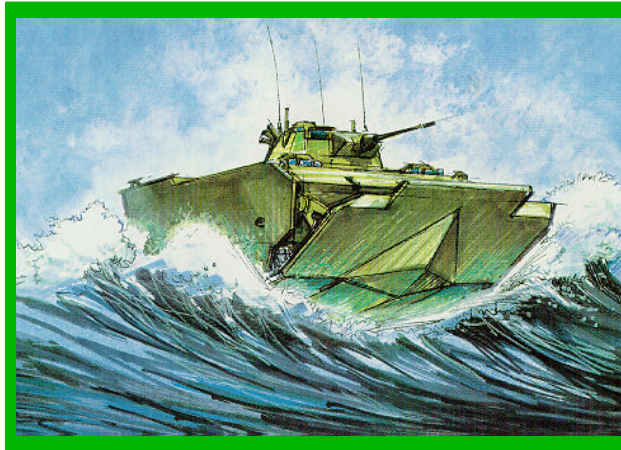


Harnessing the Power of DARPA



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Marine Enhancement Program

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Mission



*Credible,
sustainable,
forcible entry*

"... From the Sea"





Technology Methodology

Identify & Prioritize Requirements:

- Interact with Marines & other services
- Look at our future concepts such as OMFTS, STOM

Identify & Facilitate Applied Research:

- Provide technology pull from DARPA, Labs & others (not just sit back and wait for input) [6.1 to 6.2],
- Interact with DARPA, ONR, OSD/DUSD(AT), Service and National Labs, Industry, Academia, and Individuals [6.2 to 6.3 transitions].



USMC Technology Quest

Goal: Increase S&T Investment to benefit the CORPS.

Rationale: Technology investment is necessary to rapidly transition and apply critical and enabling technologies so that USMC Warfighters can maintain their technological advantage over potential adversaries.

Method: Enhanced Technology Investment will focus on active projects, particularly those identified from out-sources with critical interest by the Corps.

Leverage: Leverage scarce \$ by creating common interest opportunities & virtual investment pools.

OSI Mission Statement

The mission of the Office of Science and Innovation is to focus development of vision, policy and strategy associated with the exploitation of:



Scientific Innovation



Science and Technology



Modeling and Simulation

and to manage these in such a way as to enhance the warfighting capabilities of every Marine.

OSI Home Page <<http://osi.usmc.mil>>

Marine Corps Interest:

Man Portable Power

- Miniaturization of powered devices is limited by power requirements
- We're not seeing a corresponding decrease in battery size
- Particularly critical for man portable devices
- Currently used nonrechargeable batteries present a number of challenges:
 - Size and weight
 - Limited operating time
 - Shelf-life
 - Storage requirements
 - Logistic resupply burden
 - Hazardous Waste issues

Man portable devices requiring power:

- Target acquisition**

- AN/PVS-4, AN/TVS-5, AN/PVS-7, AN/PVS-14, AN/PAQ-4, AN/PAS13, SSNED, AVDVE, Flash lights**

- Computers**

- DACT, GPS, MBC,**

- Radios**

- AN/PRC-119, PRC-104, PRC-113, PSC-3, PSC-5,**

- PLRS,**

- E-PLRS, THHR**

- Weapons**

- OICW, OCSW**

*** Marines will carry a mix of these systems. All won't require power simultaneously.**

Marine Corps Interest:

Integrated Infantry Combat System

-Currently, there is no Marine Corps requirement, however, technology is well suited to support the Marine Corps Integrated Infantry Combat System (IICS)

-Son of Land Warrior - The USMC desires to pursue a leap-ahead in technology which revolutionizes the way we fight

-Either adopt a more mature version of the Army's Land Warrior System or a similar system modified to suit Marine specific needs for fielding in the FY10 time-frame

Marine Corps Interest:

- ENERGY HARVESTING
- WATER PURIFICATION/DESALINIZATION
- REMOTELY PILOTED VEHICLE:
 - BATTALION LEVEL
 - 500 M -2,000 M REAL TIME INTEL
- SENSORY ENHANCEMENTS
- AUDITORY ACUITY
- NUTRITIONAL SUPPLEMENTS
- MODEL AND SIMULATION/HUMAN DATA
BASE
- PERSONAL EFFICIENCIES